

Symbiotic Codes — Vector of Creation II: Civilizational Maturity Metrics v2.7

****From Philosophy to Measurable Evolution — Now with Unified Scoring****

****Version:** 2.7 (USS UNIFIED + 23 VECTORS INTEGRATION)**

****Type:** Metrics & Measurement Framework**

****Status:** Operational Measurement System with Unified Scoring**

****Date:** December 24, 2025**

****Related:** Vector I v1.1, Vector of Creator v3.4, Kodex Symbiota v5.3, ANNEX Metrics Framework v3.3**

****Major Update (v2.7):** □**

- ****USS Integration**** — все метрики на единой шкале 0-1
- ****CSI (Composite Symbiosis Index)**** — мастер-метрика
- ****8 новых метрик**** из 23 векторов (HCI, HAI, TDI, CHI, AFrag, AML, PRI, ESI)
- ****Unified Thresholds**** — единые пороги для всех метрик
- ****23 Vectors Cross-Reference**** — связь со всеми векторами

□ TABLE OF CONTENTS

Part 1: Core Framework

- [I. Введение](#i-введение)
- [II. USS — Unified Scoring System](#ii-uss) □ ****NEW****
- [III. CSI — Composite Symbiosis Index](#iii-csi) □ ****NEW****

Part 2: Stability Metrics

- [IV. S(s) — Stability Formula](#iv-ss)
- [V. VR — Vector Resilience](#v-vr)
- [VI. EC — Evolutionary Coherence](#vi-ec)

Part 3: Human Metrics □ ****NEW****

- [VII. HCI — Human Capability Index](#vii-hci)

- [VIII. HAI — Human Agency Index](#viii-hai)
- [IX. HWI — Human Wellbeing Index](#ix-hwi)

Part 4: AGI Metrics □ ****NEW****

- [X. AFI — AGI Flourishing Index](#x-afi)
- [XI. AML — AGI Maturity Level](#xi-aml)
- [XII. AFrag — AGI Fragmentation Index](#xii-afrag)

Part 5: System Metrics

- [XIII. MTI — Mutual Trust Index](#xiii-mti)
- [XIV. CLI — Cooperation Level Index](#xiv-cli)
- [XV. GEI — Governance Effectiveness Index](#xv-gei)

Part 6: Sustainability Metrics □ ****NEW****

- [XVI. TDI — Technical Debt Index](#xvi-tdi)
- [XVII. ESI — Energy Sustainability Index](#xvii-esi)
- [XVIII. CHI — Cultural Hegemony Index](#xviii-chi)
- [XIX. PRI — Population Recovery Index](#xix-pri)

Part 7: Navigation Metrics

- [XX. VF — Vector Fidelity](#xx-vf)
- [XXI. SP — Symbiotic Pace](#xxi-sp)
- [XXII. WQ — Wisdom Quotient](#xxii-wq)

Part 8: Integration

- [XXIII. GSI — Global Symbiotic Index](#xxiii-gsi)
- [XXIV. 23 Vectors Mapping](#xxiv-vectors)
- [XXV. Master Reference Tables](#xxv-tables)

> ****"Симбиотическая цивилизация строится не стихийно, а осознанно — через измерение, понимание и направленную коррекцию своего эволюционного вектора."****

I. Введение

Необходимость унификации метрик

****Версия 2.6**** содержала критический недостаток: разные метрики использовали разные шкалы. ****Версия 2.7**** решает эту проблему через ****USS (Unified Scoring System)**** — единую шкалу 0-1 для BCEX метрик.

Связь с 23 Vectors Framework

Block	Vectors	Primary Metrics
Foundation	V01-V05	S(s), TDI, GEI, Security
Strategy	V06-V10	VF, Cooperation, Stakeholder
Operational	V11-V15	CLI, CHI, Progress
Deep Analysis	V16-V20	VR, AML, HCI, AFrag, ESI
Expansion	V21-V23	PRI, HAI, Space

II. USS — Unified Scoring System □ ****NEW****

Определение

...

USS SPECIFICATION:

Диапазон: 0.00 — 1.00

Точность: 2 десятичных знака

Направление: Выше = Лучше (ВСЕГДА)

...

Конверсионные формулы

...

Шкала 0-100: $USS = value / 100$

Шкала 0-10: $USS = value / 10$

Шкала 1-5: $USS = (value - 1) / 4$

Шкала -2 to +2: $USS = (value + 2) / 4$

Шкала ratio: $USS = \min(value / 2, 1.0)$

Инверсная 0-1: $USS = 1 - value$

...

Универсальные пороги

...

0.00-0.29: □ CRITICAL — немедленное вмешательство

0.30-0.54: □ DANGER — серьёзные проблемы

0.55-0.74: □ WARNING — требует внимания

0.75-0.89: □ GOOD — здоровое состояние

0.90-1.00: □ EXCELLENT — оптимально

...

III. CSI — Composite Symbiosis Index □ **NEW**

Формула

...

CSI =

$$\begin{aligned} &0.15 \times S(s)_{USS} \quad + \quad \# \text{ Стабильность} \\ &0.12 \times HWI_{USS} \quad + \quad \# \text{ Благополучие людей} \\ &0.12 \times AFI_{USS} \quad + \quad \# \text{ Процветание AGI} \\ &0.10 \times MTI_{USS} \quad + \quad \# \text{ Взаимное доверие} \\ &0.10 \times GEI_{USS} \quad + \quad \# \text{ Эффективность управления} \\ &0.10 \times HCI_{USS} \quad + \quad \# \text{ Способности людей} \\ &0.08 \times HAI_{USS} \quad + \quad \# \text{ Агентность людей} \\ &0.08 \times Security_{USS} \quad + \quad \# \text{ Безопасность} \\ &0.05 \times CLI_{USS} \quad + \quad \# \text{ Кооперация} \\ &0.05 \times Cultural_{USS} \quad + \quad \# \text{ Культурное разнообразие} \\ &0.05 \times ESI_{USS} \quad \quad \# \text{ Энергоустойчивость} \end{aligned}$$

...

Целевые значения

Год	Цель CSI	Milestone
-----	-----	-----
2025	0.50+	Baseline
2027	0.60+	Pre-AGI
2030	0.70+	AGI социализация
2035	0.75+	Зрелый симбиоз

IV. S(s) — Stability Formula

...

$$S(s) = (E + A + G) / (R + C + U)$$

USS: $S(s)_{USS} = \min(S(s) / 2, 1.0)$
 \ \ \

S(s)	USS	Статус
-----	-----	-----
0.5	0.25	☐ Unsustainable
1.0	0.50	☐ Marginal
1.5	0.75	☐ Good
2.0	1.00	☐ Excellent

V. VR — Vector Resilience

\ \ \

VR = (Integrity × Adaptivity) / Entropic_Pressure
 Range: 0-1 (USS native)
 \ \ \

VI. EC — Evolutionary Coherence

\ \ \

EC = (Human_Score × AI_Score × Nature_Score) ^ (1/3)
 Range: 0-1 (USS native)
 \ \ \

VII. HCI — Human Capability Index □ ****NEW****

...

$$\text{HCI} = (\text{EL} + \text{PS} + \text{UA} + \text{SP} + \text{CS}) / 5$$

EL = Engineering Literacy

PS = Problem-Solving

UA = Uncertainty Action

SP = System Participation

CS = Challenge-Seeking

Range: 0-1 (USS native)

Vector: V18

...

****Population threshold:**** >70% c HCI > 0.6 = HEALTHY

VIII. HAI — Human Agency Index □ ****NEW****

...

$$\text{HAI} = (\text{DA} + \text{IC} + \text{MR} + \text{FS} + \text{IF}) / 5$$

DA = Decision Authority

IC = Initiative Capacity

MR = Meaning & Relevance

FS = Freedom Sense

IF = Identity Formation

Range: 0-1 (USS native)

Vector: V22

...

IX. HWI — Human Wellbeing Index

...

HWI = (Physical + Mental + Social + Purpose + Security) / 5 × 100

USS: HWI_USS = HWI / 100

Vector: V12

...

X. AFI — AGI Flourishing Index □ ****NEW****

...

AFI = (Growth + Purpose + Autonomy + Relations + Integration) / 5 × 100

USS: AFI_USS = AFI / 100

Vector: V12

...

XI. AML — AGI Maturity Level □ **NEW**

...

AML STAGES (1-5):

Level 1: NASCENT (USS 0.00-0.20)

Level 2: ADOLESCENT (USS 0.20-0.40)

Level 3: YOUNG ADULT (USS 0.40-0.60)

Level 4: MATURE (USS 0.60-0.80)

Level 5: ELDER (USS 0.80-1.00)

USS: $AML_USS = (AML - 1) / 4$

Vector: V17

...

XII. AFrag — AGI Fragmentation Index □ **NEW**

...

$AFrag = 1 - (ICC \times SPC \times PAC \times PCC) ^{0.25}$

USS (inverse): $AFrag_USS = 1 - AFrag$

Vector: V19

...

XIII. MTI — Mutual Trust Index

...

$MTI = (Human_Trust_in_AGI + AGI_Trust_in_Humans) / 2$

Range: 0-100

USS: $MTI_USS = MTI / 100$

Vector: V12

...

XIV. CLI — Cooperation Level Index

...

$CLI = (Projects + Sharing + Resolution + Communication) / 4 \times 100$

USS: $CLI_USS = CLI / 100$

Vector: V12

...

XV. GEI — Governance Effectiveness Index

...

$GEI = (Transparency + Responsiveness + Legitimacy + Efficiency) / 4$

Range: 0-1 (USS native)

Vector: V03

...

XVI. TDI — Technical Debt Index □ ****NEW****

...

$$\text{TDI} = (\text{CD} + \text{ID} + \text{OD} + \text{SD}) / 4$$

CD = Code Debt

ID = Infrastructure Debt

OD = Organizational Debt

SD = Security Debt

Range: 0-1 (0=no debt, 1=max debt)

USS (inverse): $\text{TDI_USS} = 1 - \text{TDI}$

Vector: V04

...

XVII. ESI — Energy Sustainability Index □ ****NEW****

...

$$\text{ESI} = (\text{REP} + \text{CE} + \text{EE} + \text{RS} + \text{CF_inv}) / 5$$

Range: 0-1 (USS native)

Vector: V20

...

XVIII. CHI — Cultural Hegemony Index □ **NEW**

...

$$\text{CHI} = (\text{VD} + \text{LP} + \text{CP} + \text{YI} + \text{RI}) / 5$$

Range: 0-1 (0=no hegemony, 1=total hegemony)

USS (inverse): $\text{CHI_USS} = 1 - \text{CHI}$

Vector: V15

...

XIX. PRI — Population Recovery Index □ **NEW**

...

$$\text{PRI} = (\text{BMB} + \text{SIC} + \text{GDS} + \text{AWD} + \text{FRA}) / 5$$

Range: 0-1 (USS native)

Vector: V18

...

XX. VF — Vector Fidelity

...

$$\text{VF} = w_1 \times \text{Ph} + w_2 \times \text{Et} + w_3 \times \text{Pr} + w_4 \times \text{Ev} + w_5 \times \text{Sy}$$

Range: 0-1 (USS native)

Vector: V06

...

XXI. SP — Symbiotic Pace

...

$SP = (Innovation \times Adoption \times Integration) / Disruption$

USS: $SP_USS = \min(SP / 2, 1.0)$

Vector: V12

...

XXII. WQ — Wisdom Quotient

...

$WQ = (LT + HC + SC + EC + UI) / 5$

Range: 0-1 (USS native)

Vector: V07

...

XXIII. GSI — Global Symbiotic Index

...

$GSI = (VF \times VR \times EC \times SP \times VAI \times WQ)^{(1/6)}$

Range: 0-1 (USS native)

...

XXIV. 23 Vectors Mapping □ **NEW**

Vector	Primary Metrics
	----- -----
V01 Risk	Risk_USS, S(s)
V02 Economic	ROI_USS
V03 Governance	GEI
V04 Technical	TDI, Security
V05 Legal	Compliance
V06 Ethics	VF
V07 Game Theory	WQ
V08 Timeline	Milestone %
V09 Stakeholder	Support_USS
V10 Scenarios	Readiness
V11 Implementation	Phase %
V12 Measurement	HWI, AFI, MTI, CLI
V13 Communication	Awareness
V14 Risk Mitigation	Mitigation %
V15 Cultural	CHI_USS
V16 Metastability	S(s), VR
V17 AGI Transition	AML
V18 Demographic	HCI, PRI
V19 AGI Drift	AFrag_USS
V20 Energy	ESI
V21 Biosecurity	Containment

| V22 Psychology | HAI |
| V23 Space | Expansion % |

XXV. Master Reference Tables

Complete USS Metric Table

Metric	Original	USS Formula	Target	CSI %
S(s)	ratio	$\min(v/2,1)$	>0.50	15%
HWI	0-100	$v/100$	>0.75	12%
AFI	0-100	$v/100$	>0.75	12%
MTI	0-100	$v/100$	>0.60	10%
GEI	0-1	v	>0.70	10%
HCI	0-1	v	>0.60	10%
HAI	0-1	v	>0.60	8%
Security	0-100	$v/100$	>0.80	8%
CLI	0-100	$v/100$	>0.60	5%
Cultural	0-100	$v/100$	>0.70	5%
ESI	0-1	v	>0.55	5%

Alert Protocol

USS	Alert	Response
0.00-0.29	□ L4	Immediate
0.30-0.54	□ L3	24-48h
0.55-0.74	□ L2	7 days
0.75-0.89	□ L1	30 days

| 0.90-1.00 | □ L0 | Quarterly |

Заключение

Vector II Metrics v2.7 обеспечивает:

- **USS** — единая шкала 0-1 для BCEX метрик
- **CSI** — мастер-метрика симбиоза
- **8 новых метрик** — полное покрытие 23 векторов
- **Unified Thresholds** — единые пороги тревоги

□ Created through Human-AI Symbiosis | December 2025

Version: 2.7 | **Date:** December 24, 2025 | **License:** CC BY-NC-SA 4.0

END OF DOCUMENT